JAMES COOK
LEARNING TRUST

YEAR 1

MATHS CURRICULUM

New Learning | Prior Learning

KNOW IT

YEAR 1

PLACE VALUE

- Count in multiples of 2, 5 and 10.
- Count reliably from 0-20.
- Begin to recognise place value in numbers beyond 20.
- Know the language of equal to, more than, less than, fewer, most, least.
- Recognise numbers 0-20
- Know odd and even numbers.
- Order numbers to 20

FRACTIONS

- Recognise ½ as 2 equal parts
- Recognise ¼ as 4 equal parts
- Know that for something to be equal it must have the same amount.

MEASURES

- 7 days = 1 week
- 12 months = 1 year
- cm is short for centimetre
- cm is used to measure length & height
- Know and use language related to measure correctly.

CALCULATIONS

- Know number bonds within and to 20
- Know number bonds to 5.
- Know one more or one less than a number.
- Know doubles and halves to 10.
- Know double means two of the same
- Know + - = signs
- Adding = number gets bigger
- Subtracting = number gets smaller

GEOMETRY

- Know whole, ½, ¼, and ¾ turns.
- Identify rectangles, squares, circles and triangles.
- Identify cuboids, cubes, pyramids and spheres using correct vocabulary to describe properties.
- Know mathematical language used to describe shapes.

New Learning | Prior Learning

TEACH IT: NUMBER & PLACE VALUE

YEAR 1

KEY OBJECTIVES

- Count to and across 100 forwards and backwards beginning with 0 or 1 or from any given number.
- Count, read and write numbers to 100 in numerals.
- Read and write numbers from 1 to 20 in numerals and words.
- Count reliably with numbers to 10.
- Link names of numbers and numerals to their value, to 10.
- Count in multiples of twos, fives and tens.
- Explore patterns of numbers within 10, including even and odd.
- Identify and represent numbers using objects and pictorial representations, including the number line and use the language of equal to, more than, less than, most and least.
- Use the language of more and fewer to compare two sets of objects.
- Given a number, identify one more and one less.
- Find one more or one less from a group of up to 5 objects, then 10.

POSSIBLE TEACHING SEQUENCE

Count to and across 100 forwards...

⇒ Count forwards and backwards to 10 in 1s from any number; then to 20; then to 50.

⇒ Count forwards and backwards to 100 in 1s from any number (with the help of 100 square).

⇒ Count on or back to continue a number sequence.

Count, read and write numbers to 100 in numerals

⇒ Count, read and write numbers to 10 on a number track/line; then 20; 50; 100– on a 100 square too.

Count in multiples of twos, fives and tens

⇒ Count in 10s to 100 (use this skill with Base 10 to identify the value of 2-digit numbers).

⇒ Count in 5s to 50; then 100.

⇒ Count in 2s to 20; then 2s to 50; then 100.

⇒ Count back in 2s , 5s and 10s within 50.

⇒ Draw attention to patterns in the number system.

Given a number, identify one more and one less

⇒ Find one more, then one less within 10 using concrete resources, then 20.

⇒ Find one more (the number after) within 10 by counting on with the help of a number track then without; repeat for one less, then 20.

⇒ Find 1 more & less within 50 using number tracks & 1-50 grids. Teach that tens digit isn't affected unless it is 9 & apply known facts e.g. 1 more than 7 is 8 so 1 more than 47 is 48.

⇒ Find one more by adding one and one less by taking one away within 100 using concrete materials, number tracks and 100 square.

Identify and represent numbers using objects…

⇒ Compare two groups of objects using equal to, more than/greater, less than/fewer, most and least.

⇒ Compare two numbers using equal to, more than/greater, less than/fewer, most and least.

⇒ Show that one ten is equal to ten ones using concrete resources.

⇒ Show that numbers 11-19 have 1 ten and some ones. Use this idea to create 2 digit numbers, for example 34 —3 tens and 4 ones using concrete and pictorial representations (sticks and dots).

⇒ Order three groups of objects by comparing two groups initially or by lining the groups of objects up. State the greatest and smallest.

⇒ Order numbers from smallest to greatest (using concrete resources or pictorial representations to check answers). Compare numbers using the tens digit first e.g. 15 > 8 because it has a ten however, 23 & 26 both have 2 tens, so we compare the ones.

STEM SENTENCES

- 'There are ten ones in a ten.'
- 'There are one hundred ones in a hundred.'
- 'There are ten tens in a hundred.'
- '38 is 38 ones.'
- '38 is 3 tens and 8 ones.'
- 'Zero is the digit 0, which stands for no amount.'
- 'One more is the number that comes after.'
- 'One less is the number that comes before.'

KEY TERMINOLOGY

- **Zero**
- **Count**
- **Represent**
- **Greater**
- **Smaller**
- **Largest**
- **Smallest**
- **Number line**
- **Number track**
- **Forwards**
- **Backwards**
- **More**
- **Less**
- **Fewer**
- **Compare**
- **Most**
- **Least**
- **Equal**
- **Order**
- **First**
- **Last**
- **Tens**
- **Ones**
- **Digit**
- **Pairs**
- **One more/less**
- **Count on/back**
- **Sort**
- **Group**
- **Even/odd**

COMMON MISCONCEPTIONS

- 'Teen' numbers— saying threeteen instead of thirteen and fiveteen instead of fifteen
- Finding 10 more instead of 1 more, eg. 1 more than 13 is 23 instead of 14.
- Mixing up 'ty' and 'teen', eg. Forty = fourteen
- Inaccurate counting when crossing 10s boundaries eg. 42, 41, 40, 49
- Writing 2 digit numbers with 3 digits, eg 56 = 506
- Mistakenly counting forwards instead of backwards and vice-versa.
- Counting tens as ones when using concrete resources and pictorial representations,eg.3 tens and 6 ones = 9 instead of 36
- Reversal of digits e.g. 17 = 71

KEY VOCABULARY

⇒ **Equal**— the same amount or value

⇒ **Greater**—when a number/amount is bigger/larger than others

⇒ **Fewer**—when a number/amount is smaller/less than others

⇒ **Order**—putting things in the correct place

⇒ **Digit**—written numeral from 0-9 that forms part of a number

Can you somehow fit this into the key vocabulary??

Value the amount a digit is worth. (make this the first one)

Partition to split or break a number into 2 or more parts. (make t

New Learning | Prior Learning

TEACH IT: ADDITION & SUBTRACTION

YEAR 1

KEY OBJECTIVES

- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=).
- In practical activities and through discussion, begin to use the vocabulary involved in adding and subtracting.
- Represent and use number bonds and related subtraction facts within 20.
- Automatically recall number bonds for numbers 0-5 and for 10, including corresponding partitioning facts.
- Add and subtract one-digit and two-digit numbers to 20, including zero.
- Find the total number of items in 2 groups by counting them all.

POSSIBLE TEACHING SEQUENCE

Read, write and interpret…

⇒ Reinforce language of addition using practical resources and real-life.

⇒ Introduce addition symbol to create number sentences, e.g. 6 + 3 = 9 (6 apples plus 3 apples is equal to 9 apples).

⇒ Use fact families to record number sentences that show the order of an addition sentence can be varied (i.e. addition is commutative).

⇒ Introduce language of subtraction as taking away in real life contexts (birds flying away, sweets being eaten etc) then introduce the subtraction symbol.

⇒ Use fact families to show the relationship between addition and subtraction within 10 to begin and then within 20 (e.g. 5+1 = 6; 1+5 = 6; 6-5 = 1; 6-1 = 5).

Represent and use number bonds...

⇒ Explore number bonds by finding how many different ways a number can be partitioned, start with the whole to work systematically (5 + 0 = 5; 4+1 = 5; 3+2 = 5 etc).

⇒ Use tens frame, bead strings and fingers to systematically explore number bonds within 10 and record the matching number sentences.

⇒ Compare two sets of number bonds represented in number sentences e.g. 5+3 is greater than 4+2.

⇒ Explore the related subtraction facts.

⇒ Find the missing value (7 = 2 + ?)

⇒ Use number bonds to 10 to find number bonds to 20 (7 + 3 = 10; 17 + 3 = 20)

Add and subtract one-digit…

⇒ Add 2 sets of objects within 10 using concrete resources & pictorial representations

⇒ Add on to find the total using a number line to begin and then mentally by putting the largest number in head and count on.

⇒ Use knowledge of number bonds to add numbers within 20 e.g. partition 8 into 4 and 4 to bridge through 10: 6 + 8 = 6 + 4 + 4.

⇒ Subtract by removing objects/crossing out pictures e.g. 9 - 5 = 4 Tom has 9 cars. He gives 5 of them away. How many does he have left?

⇒ Count back to subtract within 10 using a number line to begin and then mentally by putting the start number in our head.

⇒ Find the difference within 10 by counting back from the largest number, on from the smallest number or by making both amounts using concrete resources or pictorially.

⇒ Partition numbers to help subtract when crossing ten using concrete resources and pictorial representations to begin with (eg. Partition 5 into 2 and 3: 12-5 = 12-2-3).

⇒ Compare 2 number sentences by working out each one & deciding if they're equal to each other or greater than/less than.

STEM SENTENCES

- 'Addition can be done in any order.' 'Subtraction cannot be done in any order.'
- 'A whole can be split into two or more parts.'
- 'I know that 2 + 8 = 10 and 8 + 2 = 10, so 12 + 8 = 20 and 18 +2 = 20.'
- 'I know that 5 + 1 = 6 and 1 + 5 = 6, so 6—1 = 5 and 6—5 = 1.'

KEY TERMINOLOGY

- **Whole**
- **Part**
- **Addition**
- **Add**
- **Plus**
- **Equal to**
- **Total**
- **Altogether**
- **Represent**
- **Number bond**
- **Subtraction**
- **Subtract**
- **Take away**
- **Difference**
- **Count on**
- **Count back**
- **Calculate**
- **Less than**
- **More than**
- **Greater**
- **Fewer**
- **Group**
- **Missing part**

COMMON MISCONCEPTIONS

- Including the starting number when counting back (5-3 = 5...4...3).
- Thinking that subtraction can be done in any order.
- Disregarding zero when thinking of number bonds.
- Assuming that the calculation must always come before the equals sign.

KEY VOCABULARY

Can you somehow fit this into the key vocabulary??

⇒ Partition – splitting up a number into smaller numbers.

⇒ Plus – to add two or more numbers/amounts.

⇒ Difference – subtracting one number from another

⇒ Fact family – a group of related numbers facts using the same

⇒ Part Whole Model – a diagram used to work out how 2 or m

make a whole.

New Learning | Prior Learning

TEACH IT: MULTIPLICATION & DIVISION

YEAR 1

KEY OBJECTIVES

- Solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with support from the teacher.

- Automatically recall double facts up to 5+5.
- Solve problems involving doubling, halving and sharing.

POSSIBLE TEACHING SEQUENCE

Solve one-step problems involving multiplication…

⇒ Count in 2s, 5s and 10s (using pictures, bead strings, number lines and 100 squares).

⇒ Explore making equal groups using concrete resources and pictorial representations.

⇒ Add equal groups of 2, 5 and 10 within 50 (link to real life, eg. animal legs, bicycle wheels, fingers on hands etc) Record as repeated addition number sentences.

⇒ Make arrays by arranging equal groups of objects/ pictures in rows or columns and record as repeated addition number sentences.

⇒ Explore doubling within 20 using concrete resources and pictorial representations. Record as an addition number sentence (7+7=14).

⇒ Divide by making equal groups of 2, 5 and 10 when given a start amount of objects e.g. How many equal groups of 5 can you make with 20 pencils?

⇒ Divide by sharing objects into equal groups e.g. share the 10 cakes between 2 plates.

STEM SENTENCES

- 'Doubling is adding the same number to itself.'
- 'Double ___ is ___.'
- 'The groups are equal because there are the same number of objects in each group.'
- 'There are 4 groups of 10 pencils, which equals 40 altogether.'
- '20 can be sorted into 4 equal groups of 5.'
- '10 shared between 2 equals 5.'

KEY TERMINOLOGY

- **Altogether**
- **Array**
- **Row**
- **Column**
- **Double**
- **Repeated addition**
- **Equal groups**
- **Share**
- **How many**
- **Left over**
- **Twice**
- **Add**
- **Total**
- **Fair/fairly**

COMMON MISCONCEPTIONS

- That you will always be able to share equally without any objects left over.
- Thinking that groups of objects are not equal if they are set out differently.

- Not sharing or grouping objects accurately (miscounting).
- Confusing the number of groups with the amount in each group e.g. 5 groups of 2, 2 groups of 5.

PATTERNS

2 times tables

- All even;
- Doubling.

5 times tables

- Ends in 0 or 5;
- Half the 10 times table;

10 times tables

- Double the 5 times table;
- Always ends in 0;
- Always a multiple of 5.

KEY VOCABULARY

⇒ **Equal**—the same amount

⇒ **Unequal**—different amounts

⇒ **Array**—an arrangement of objects or pictures in rows and columns.

⇒ **Row**—an arrangement of objects or pictures horizontally or side by side.

⇒ **Column**—an arrangement of objects or pictures vertically or one above the other.

⇒ **Repeat**—do something again.

⇒ **Divide**-to share or group a number into equal parts.

New Learning | Prior Learning

TEACH IT: FRACTIONS

YEAR 1

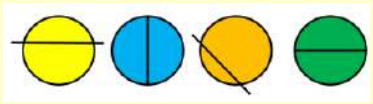
KEY OBJECTIVES

- Recognise, find and name a half as one of two equal parts of an object, shape or quantity.
- Recognise find and name ¼ as one of four equal parts of an object, shape or quantity.
- Solve problems involving doubling, halving and sharing.

POSSIBLE TEACHING SEQUENCE

Recognise, find and name a half as ….

⇒ Explore finding half of shapes and objects.



⇒ Find half of a small quantity by sharing equally into two (using concrete resources).

Recognise, find and name a quarter as…

⇒ Explore finding quarters of shapes and objects.

⇒ Find quarter of a small quantity by sharing equally into four (using concrete resources).

For example, put ¼ of the cakes into the tin:

STEM SENTENCES

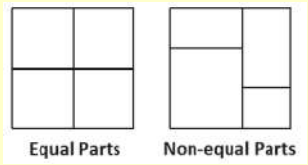
- 'Half of ___ is ___.'
- 'Quarter of ___ is ___.'
- 'A part is smaller than a whole.'
- 'A quarter is 1 of 4 equal parts.'
- 'A half is 1 of 2 equal parts.'

KEY TERMINOLOGY

- **Part**
- **Split**
- **Whole**
- **Equal**
- **Unequal**
- **Same**
- **Different**
- **Share**
- **Group**

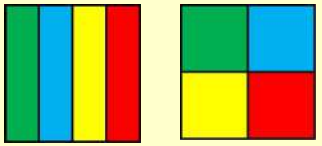
COMMON MISCONCEPTIONS

- Assuming that 4 parts is always quarters even when they are not equal parts e.g.

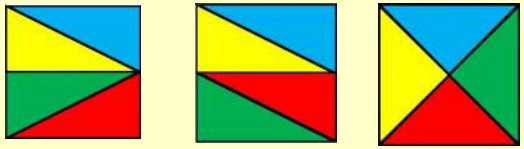


- Equal parts have to look the same when they do not

- They are only equal if you split them into squares or rectangles:



Equal parts



Not equal parts

KEY VOCABULARY

⇒ **Half**—one of two equal parts

⇒ **Quarter**—one of four equal parts

New Learning | Prior Learning

TEACH IT: MEASURE

YEAR 1

KEY OBJECTIVES

- Compare, describe and solve practical problems for:
  - ⇒ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
  - ⇒ mass/weight [for example, heavy/light, heavier than, lighter than]
  - ⇒ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
  - ⇒ time [for example, quicker, slower, earlier, later]
- Measure and begin to record the following:
  - ⇒ lengths and heights
  - ⇒ mass/weight
  - ⇒ capacity and volume
  - ⇒ time (hours, minutes, seconds)
- Use everyday language to talk about size, weight, capacity, distance and time to compare quantities and objects and to solve problems.
- Recognise and know the value of different
- Use everyday language to talk about money to compare quantities and objects and to solve problems.
- Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- Order and sequences familiar events.
- Recognise and use language relating to dates, including days of the week, weeks, months and years.
- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.
- Measure short periods of time in simple ways.

POSSIBLE TEACHING SEQUENCE

Length & Height
⇒ Describe and compare the length of different objects
⇒ Use non-standard units (cubes/straws) to measure length & height.
⇒ Use a ruler to measure objects

Mass & Weight
⇒ Describe and compare the weight of different objects (in their hands before using scales to check) using the language heavy/light.
⇒ Use non-standard units (cubes) to measure the mass of an object.
⇒ Use balance scales to compare two objects.

Volume & Capacity
⇒ Describe the volume in a container by describing whether it's full, almost full, empty, nearly empty.
⇒ Compare the volume in two containers by describing which has more or less than another.
⇒ Measure the capacity of different containers using non-standard units (a spoon, a cup)
⇒ Compare the capacity of different containers using non-standard unit of measure

Money
⇒ Recognise each coin and name its value
⇒ Match coins with equivalent values (eg. One 5p coin = Five 1p coins)
⇒ Recognise each note and name its value
⇒ Show that one note can represent many pounds and may also be worth many times the value of another note.
⇒ Count in 2s, 5s and 10s to count money.

Time
⇒ Describe, sort and order events
⇒ Name the days of the week
⇒ Explore and use a calendar to learn about the months of the year, picking out some special dates within the year (eg. their birthday).
⇒ Read the time to the hour and draw the hands to show o'clock.
⇒ Read the time to the half hour and draw the hands to show half past.
⇒ Explore equipment (stopwatches, sand timers) to measure durations of time (eg. how long it takes to run around the playground or how many star jumps you can do in 30 seconds)
⇒ Compare amounts of time (faster, slower, earlier, later).

STEM SENTENCES

- 'The hour hand is the shorter hand.'
- 'The minute hand is the longer hand.'
- 'When the minute hand is pointing to 12, it is an o'clock time.'
- 'When the minute hand is pointing to 6, it is a half past time.'
- 'The object that is up is light.'
- 'The object that is down is heavy.'

KEY TERMINOLOGY

- **Long, longer, longest**
- **Short, shorter, shortest**
- **Tall, taller, tallest**
- **Equal to**
- **Compare**
- **Measure**
- **Ruler**
- **Heavy, heavier, heaviest**
- **Light, lighter, lightest**
- **Weigh**
- **Balance**
- **Scales**
- **Full, empty**
- **Container**
- **More, less**
- **Large, larger, largest**
- **Small, smaller, smallest**
- **Coin**
- **Note**
- **Before, after**
- **First, next, then**
- **Morning, Afternoon, Evening**
- **Today, Yesterday, Tomorrow**
- **Day, Week, Month, Year**
- **O'clock, Half past**
- **Hour, Minute, Second**
- **Hand**
- **Faster, Slower**
- **Earlier, Later**
- **Pound £/ Pence p**
- **Coin/note**
- **Value**
- **Total**
- **Difference**
- **Date**

COMMON MISCONCEPTIONS

- Larger objects are always heavier or taller containers always have a larger capacity.
- Larger quantity of coins is worth more than a smaller amount.
- Larger coins are worth more than smaller coins.
- Mixing up the hour and minute hands.
- Not lining up non-standard units correctly when measuring objects or using non-standard units of different lengths to measure an object inaccurately.

KEY VOCABULARY

⇒ **Value** - what something is worth
⇒ **Mass and weight** - how heavy something is
⇒ **Volume and capacity** - the amount a container can hold/ is holding
⇒ **Length** - how long something is

New Learning | Prior Learning

TEACH IT: GEOMETRY

YEAR 1

KEY OBJECTIVES

- Recognise and name common 2-D and 3-D shapes, including:
  - ⇒ 2-D shapes [for example, rectangles (including squares), circles and triangles]
  - ⇒ 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

- Explore characteristics of everyday objects and shapes and use mathematical language to describe them.
- Select a particular named shape
- Use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes.

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.

- Use everyday language to talk about position to compare objects and to solve problems.
- Describe their relative position such as 'behind' or 'next to'.

POSSIBLE TEACHING SEQUENCE

Recognise and name common 2-D and 3-D shapes

⇒ Name simple 3D shapes presented in different orientations
⇒ Sort and group 3D shapes according to simple properties (including type, size, colour)
⇒ Explore whether 3D shapes can roll or be stacked
⇒ Consider 2D shapes they can see as faces on 3D shapes and name them
⇒ Describe and compare simple properties of 2D shapes
⇒ Sort and group 2D shapes according to simple properties (including type, size, colour)
⇒ Use 2D and 3D shapes (in different orientations) to make and complete patterns

Describe position, direction and movement…

⇒ Describe turns made by shapes and objects (using the language full, half, quarter and three-quarter)
⇒ Describe position and direction of shapes and objects from different starting positions (left, right, forwards, backwards)
⇒ Describe position of shapes and objects in relation to others (top, bottom, above, below, in between)

STEM SENTENCES

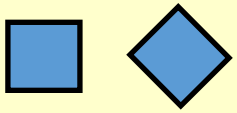
- 'Full turn means you or the object will end up facing the same way again.'
- 'Half turn means you or the object will face the opposite way.'

KEY TERMINOLOGY

- **Cube**
- **Cuboid**
- **Cylinder**
- **Pyramid**
- **Cone**
- **Sphere**
- **Roll**
- **Stack**
- **Sort**
- **Group**
- **Faces**
- **Flat/flat face**
- **Curved/curved face**
- **Edge**
- **Triangle**
- **Square**
- **Rectangle**
- **Circle**
- **Sides**
- **Turn**
- **Full/Half/quarter/ three-quarter**
- **Position**
- **Direction**
- **Left/Right**
- **Forwards/Backwards**
- **Top/Bottom**
- **Above/Below**

COMMON MISCONCEPTIONS

- Thinking that a square is no longer a square if it has been rotated.



- Mixing up left and right.
- Name 3D shapes by the name of their 2D face.

KEY VOCABULARY

⇒ **2D shape**—a shape that is flat (with only 2 dimensions)
⇒ **3D shape**—a shape that has a solid form (with 3 dimensions)
⇒ **Pattern**—a sequence that repeats itself over and over again.
⇒ **Direction**-the way something is going.
⇒ **Position**-where something is in comparison to something else.
⇒ **Vertices** -the corners or points on a shape.

New Learning | Prior Learning

YEAR 1

APPLY IT: PROBLEM-SOLVING & REASONING

PROBLEM-SOLVING AND REASONING SHOULD BE APPLIED THROUGHOUT ALL TEACHING NOT JUST WITHIN ISOLATED LESSONS.

PROBLEM-SOLVING AND REASONING.

The following strategies are a very powerful way of developing pupils' problem-solving and reasoning skills and can be used flexibly across all strands of maths.

- **Spot the mistake/Which is different?**
- **True or false?**
- **What comes next?**
- **Do, then explain.**
- **Make up an example/Write more statements/ Create a question/Another and another.**
- **Possible answers/other possibilities.**
- **Missing numbers/Missing symbols/Missing information.**
- **Working backwards/Use of inverse/Undoing/ Unpicking.**
- **Hard and easy questions/Order from easiest to hardest.**
- **What else do you know?/Use a fact.**
- **Fact families.**
- **Convince me/Prove it/Generalising/Explain thinking**
- **Connected calculations.**
- **Make an estimate/Size of an answer.**
- **Always, sometimes, never.**
- **Making links/Application.**
- **Can you find?**
- **Odd one out.**
- **Complete/continue the pattern.**
- **Ordering.**
- **The answer is…**
- **Visualising**
- **Answer free zone.**
- **Justify.**

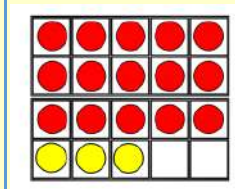
PROBLEM-SOLVING AND REASONING EXAMPLES FOR YEAR 1

Place Value

Eva is counting from 38 to 24.
Will she say the number 39?
Will she say the number 29?
Will she say the number 19?
Explain how you know.

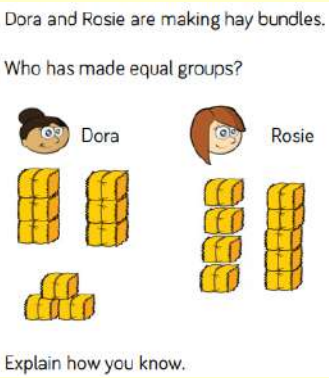
Addition & Subtraction

Circle the addition & subtraction number sentences that match the ten frames.



15 + 3 = 18 | 15 – 3 = 18
3 + 18 = 15 | 18 – 15 = 3
18 + 3 = 15 | 18 – 3 = 15
18 = 3 + 15 | 15 – 18 = 3

Multiplication & Division

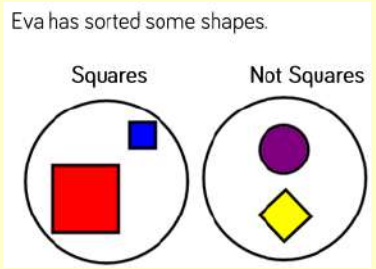


Fractions

Mo says that it is hard to find half of an odd number. Do you agree with Mo? Explain your answer.

5

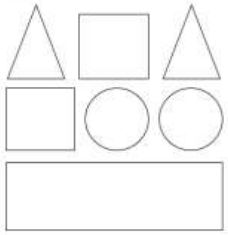
Geometry-Shape



Has she sorted them correctly? Explain how you know.

Geometry-Position & Direction

Use the clues to colour the shapes.



- The circle in the middle is blue.
- The circle on the right is red.
- The shape up from the right circle is green.
- The shape down from the circles is green.
- The square to the left of the green triangle is red.
- The four-sided shape up from the rectangle is blue.
- The triangle on the left is red.

Measures

How many cubes does the teddy bear weigh? Explain how you know.

Jack thinks he has more money because his coin is the biggest. Explain why he is wrong.